

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To:

PCT

see form PCT/ISA/220

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43bis.1)

Date of mailing
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference
see form PCT/ISA/220

FOR FURTHER ACTION

See paragraph 2 below

International application No
PCT/GB2004/005167

International filing date (day/month/year)
09.12.2004

Priority date (day/month/year)
12.12.2003

International Patent Classification (IPC) or both national classification and IPC
B25J15/10

Applicant
GLAXO GROUP LIMITED

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☒ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☒ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability: citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA



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Box No. I Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
 - ☐ This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material:
 - ☐ a sequence listing
 - ☐ table(s) related to the sequence listing
 - b. format of material:
 - ☐ in written format
 - ☐ in computer readable form
 - c. time of filing/furnishing:
 - ☐ contained in the international application as filed.
 - ☐ filed together with the international application in computer readable form.
 - ☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non obvious), or to be industrially applicable have not been examined in respect of:

- ☐ the entire international application.
- ☒ claims Nos. 11,12

because:

- ☐ the said international application, or the said claims Nos. relate to the following subject matter which does not require an international preliminary examination (*specify*)
- ☐ the description, claims or drawings (*indicate particular elements below*) or said claims Nos. are so unclear that no meaningful opinion could be formed (*specify*):
- ☐ the claims, or said claims Nos. are so inadequately supported by the description that no meaningful opinion could be formed.
- ☒ no international search report has been established for the whole application or for said claims Nos. 11,12
- ☐ the nucleotide and/or amino acid sequence listing does not comply with the standard provided for in Annex C of the Administrative Instructions in that:
 - the written form ☐ has not been furnished
 - ☐ does not comply with the standard
 - the computer readable form ☐ has not been furnished
 - ☐ does not comply with the standard
- ☐ the tables related to the nucleotide and/or amino acid sequence listing, if in computer readable form only, do not comply with the technical requirements provided for in Annex C-*bis* of the Administrative Instructions.
- ☐ See separate sheet for further details

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/GB2004/005167

Box No. IV Lack of unity of invention

1. ☒ In response to the invitation (Form PCT/ISA/206) to pay additional fees, the applicant has:
- ☒ paid additional fees.
 - ☐ paid additional fees under protest
 - ☐ not paid additional fees.
2. ☐ This Authority found that the requirement of unity of invention is not complied with and chose not to invite the applicant to pay additional fees.
3. This Authority considers that the requirement of unity of invention in accordance with Rule 13.1, 13.2 and 13.3 is
- ☐ complied with
 - ☒ not complied with for the following reasons:
see separate sheet
4. Consequently, this report has been established in respect of the following parts of the international application:
- ☒ all parts.
 - ☐ the parts relating to claims Nos.

Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	1-10
	No: Claims	
Inventive step (IS)	Yes: Claims	
	No: Claims	1-10
Industrial applicability (IA)	Yes: Claims	1-10
	No: Claims	

2. Citations and explanations

see separate sheet

Re Item IV.

1. The present application contains two groups of claims which are not so linked as to form a single general inventive concept (Rule 13.1 PCT), namely:
 - Claims 1-8, directed to a holding tool comprising a gripping unit defining an outwardly-facing gripping surface and an inwardly-facing gripping surface for gripping respectively the inner peripheral surface and the outer peripheral surface of different objects.
 - Claims 9 and 10, directed to a supporting unit comprising concentric recesses configured to receive different objects.
2. The common concept linking together the above groups of claims is limited to a device for handling objects of different kind, in accordance with the aim of the invention as laid out on page 1, last paragraph.
 - 2.1. Among all the known devices representing this general concept, the closest prior art with respect to the device of claim 1 is represented by JP-A-11 300 675 (D1), which discloses an object holding tool for holding objects of different shape, as specified in the abstract and illustrated on figure 3 of D1. The known device comprises a gripping unit having finger members, and acts in an expanded configuration to grip the inner peripheral surface of an object, see fig.3(2), as well as in a contracted configuration to grip an outer peripheral surface of an object of another kind, see fig.3(1).
 - 2.2. The special technical features of the holding tool of claim 1 in view of the D1 prior art are the gripping surfaces provided instead of the mere contact lines of the finger members of D1, in order to improve the gripping effect.
 - 2.3. In claim 9, the common concept of a device for handling objects of different kind is applied to a supporting unit, by providing two concentric recesses to receive objects

of different diameter.

- 2.4. The supporting unit of claim 9 is not concerned with the gripping of objects and therefore neither includes the above mentioned special technical features of claim 1, nor constitutes an alternative to the device of claim 1. Additionally, the supporting unit does not function in a cooperative or complementary manner with the holding tool of claim 1 so as to benefit from the improved gripping effect.
- 2.5. Consequently, there is no technical relationship between the devices of the two above groups of claims involving the same or corresponding special technical features according to Rule 13(2) PCT.
Therefore, these devices are not so linked as to form a single general inventive concept, as required in Rule 13(1) PCT.

Re Item V.

- 1 As already presented above with regard to unity, D1 is considered as the closest prior art in respect of claim 1.
- 1.1. D1 discloses an object holding tool for holding objects of different shape, as specified in the abstract and illustrated on figure 3 of D1. The known device comprises a gripping unit having finger members, and acts in an expanded configuration to grip the inner peripheral surface of an object, see fig.3(2), as well as in a contracted configuration to grip an outer peripheral surface of an object of another kind, see fig.3(1).
- 1.2. The holding tool according to claim 1 differs from the D1 prior art only in that its gripping unit defines gripping surfaces instead of the mere contact lines of the finger members of D1.
The advantage of this distinguishing feature is an improved gripping effect provided

by contact surfaces in comparison with contact lines.

- 1.3. However, it is well-known to achieve an improved gripping effect by providing gripping members with an arcuate surface to come into surface contact with the peripheral surface of an object, as disclosed in particular in US-A-5 775 755 (D2), see fig.3 and col.2 lines 35-40.
- 1.4. Consequently, it appears obvious for the skilled person, in order to achieve an improved gripping effect, to apply the teaching of D2 to the device of D1 by giving an arcuate profile to the end part of the finger members 8 of D1 to define outwardly-facing and inwardly-facing gripping surfaces which both come into contact with peripheral surfaces of objects of different kind, and thereby to arrive at the presently claimed device without being inventive.
2. The additional features of the dependent claims 2 to 8 do not impart an inventive step to the claimed tool for the following reasons.
 - 2.1. As readily appears on the drawings of D1 and D2, the additional features of claims 2 to 5 and 7 are known from both documents, see in particular the biasing elements 9 in D1 and 42 in D2.
Additionally, the combination of D1 and D2 presented in the above paragraph 1.4 leads to a tool with outwardly-facing and inwardly-facing gripping surfaces of different diameter, as defined in dependent claim 8.
 - 2.2. The specific drive unit defined in dependent claim 6 is known from the document JP-A-2002 036 162 (D3), which discloses an object holding tool similar to those of D1 or D2, comprising a drive unit with a diaphragm in form of a rubber sleeve 3 which deforms under fluid pressure for spreading gripping members 14.
Such a drive unit appears more economical to handle light objects than the drive unit of D1.
Therefore, the skilled person would combine D1 on one hand with D2 for improving the gripping effect, as explained above, and on the other hand with D3 for providing an economical drive unit for handling light objects, thereby arriving at a tool according

to claim 6 without an inventive step.

3. The subject-matter of independent claim 9 lacks an inventive step in view of EP-A-0 788 871 (D4) as well as JP-A-61 172 671 (D5) for the following reasons.
 - 3.1. The pallet disclosed on figs.1a-1d of D4, as well as the jig 12 disclosed on fig.4 of D5 both comprise two concentric recesses in their upper part.

These recesses are configured to receive and support objects of different depths as defined in claim 9. It is pointed out in this respect that the fact that the upper ends of two different objects received in the supporting unit are at the same height is not an intrinsic feature of the claimed unit.

The presently claimed unit differs from the above prior art only in that it comprises a lower base member.

However, it appears obvious for the skilled person to provide a supporting member as those known from D4 or D5, with a lower base member when necessary, eg for registration purposes or height adjustment within the normal use of the pallet of D4 or the jig of D5, thereby arriving at a supporting unit in full accordance with present claim 9.
4. The additional feature of dependent claim 10 appears as obvious as the provision of the base member itself, a recess in the lower surface of a base member being a well-known feature for fitting the base member in a precise and removable way to an underlying structure.
5. All the claims clearly fulfil the requirement of industrial application according to Article 33 (1),(4) PCT.